Product Specifications

802.11n Wireless ADSL 2/2+ 4-Port Router

ADN-4101

Version 2.0

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Change History:

Revision	Date	Author	Change List
Version 2.0	2013/04/19	Anthony Chen	Change chipset
Version 1.2	2011/11/02	Frank Tsai	Add wireless transmit power and receiver sensitivity information.
Version 1.1	2011/05/18	Frank Tsai	Delete the IPv6 feature
Version 1.0	2011/03/08	Frank Tsai	Initial Release

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Reviewed by	Jonas Yang	Approved by	Tom Shih

PRODUCT DESCRIPTION

Improved Networking Function for Future IP Compatibility

PLANET ADN-4101 is a Wireless ADSL 2/2+ Router compliant with 802.11n and features 1T1R MIMO antenna technology. The ADN-4101 is the ideal solution for office and residential users to share a high-speed ADSL 2/2+ broadband Internet connection and four-10/100Mbps Fast Ethernet backbone. It can support transmission rates up to 24Mbps downstream and 3.5Mbps upstream with ADSL 2+ support. Through integration with single chipset to reduce boot time, the ADN-4101 provides more performance to user. The ADN-4101 supports PPPoA (RFC 2364 - PPP over ATM Adaptation Layer 5), RFC 2684 encapsulation over ATM (bridged or routed), PPP over Ethernet (RFC 2516), and IPoA (RFC1483) to establish a connection with ISP.

High-Speed 802.11n Wireless Type

With built-in IEEE 802.11b/g and 802.11n wireless network capabilities, the ADN-4101 allows any computer and wireless-enabled network device to connect it without additional cabling. New 802.11n wireless capability gives you the highest speed of wireless experience ever. With a compatible wireless card installed in your PC, any file can be transferred and the highest speed can be up to 150Mbps. The radio coverage is also doubled than before, which offers the high speed wireless connection even in a wide space of your office or house.

One-touch Secure Wireless Connection

To secure the wireless communication, the ADN-4101 features the most up-to-date encryption, WEP, WPA-PSK and WPA2-PSK. The ADN-4101 also supports WPS configuration with PBC/PIN type for users to easily connect to a secured wireless network with no need of complicated settings.

Powerful Firewall and Complete Access Control Functions

The ADN-4101 has user-friendly management interfaces so it can be managed by workstations running standard web browsers. It provides DHCP server, NAT, Virtual Server, DMZ, Access Control, IP Filter, DDNS, and UPnP capability. The ADN-4101 also serves as an Internet firewall to protect your network from being accessed by unauthorized users. It offers the natural firewall function. All the incoming and outgoing IPs can be monitored and filtered. For the advanced application, it even can block internal users accessing to the Internet services.

PRODUCT FEATURES

Internet Access Features

- **Shared Internet Access**
  All users in the LAN can access the Internet through the ADN-4101 by just a single external IP Address. The local (invalid) IP Addresses are hidden from external sources. This process is called NAT (Network Address Translation).

- **Built-in ADSL 2/2+ Modem**
  The ADN-4101 provides ADSL 2/2+ modem service and supports all common ADSL connections.

- **PPPoE, PPPoA, Direct Connection Support**
  Various WAN connections are supported by the ADN-4101.

- **Fixed or Dynamic IP Address**
  On the Internet (WAN port) connection, the ADN-4101 supports both Dynamic IP Address (IP Address is allocated on connection) and Fixed IP Address.

Advanced Internet Functions

- **Virtual Servers**
  This feature allows Internet users to access Internet servers on your LAN. The required setup is quick and easy.

- **DMZ Support**
  The ADN-4101 can translate public IP addresses into private IP address and allow unrestricted 2-way communication with servers or individual users on the Internet. This provides the most flexibility to run programs which could be incompatible in NAT environment.

- **Firewall**

  The ADN-4101 supports simple firewall with NAT technology and provides options for access

control from Internet like Telnet, FTP, TFTP, HTTP, SNMP, and ICMP services. It also supports IP/ MAC/ Application/ URL filtering**.**

- **Universal Plug and Play (UPnP)**
  UPnP allows automatic discovering and configuration of the Broadband Router. UPnP is supported by Windows ME, XP, or later.

- **Dynamic DNS Support**

- Based on the Virtual Servers feature, the ADN-4101 allows users to connect a server to the LAN by using a Domain Name even if you have a dynamic IP address. The ***ADN-4101 supports Planet Dynamic DNS that it is free for customers.***

- **RIP Routing**
  It supports RIPv1/2 routing protocol for routing capability.

- **Simple Network Management Protocol (SNMP)**
  It is an easy way to remotely manage the router via SNMP.

LAN Features

- **4-port Switch**
  The ADN-4101 incorporates a 4-port 10/100Base-TX switching hub, making it easy to create or extend your LAN.

- **DHCP Server Support**
  Dynamic **H**ost **C**onfiguration **P**rotocol provides a dynamic IP address to PCs and other devices upon request. The ADN-4101 can act as a DHCP Server for devices on your local LAN and WLAN.

Wireless Features

- **Supports IEEE 802.11b, g and 802.11n Wireless Standard**
  The 802.11n standard provides backward compatibility with the 802.11b and 802.11g standard, so 802.11b, 802.11g, and 802.11n compliant devices can be used simultaneously.

- **802.11n Technology**
  The ADN-4101 complies with IEEE 802.11n wireless technology standard and provides

data rate up to 150Mbps. It provides farther coverage, less dead spaces and higher throughput.

- **WEP Support**
  WEP (Wired Equivalent Privacy) is included. Key sizes of 64 bit and 128 bit are supported.

- **WPS Push Button Control**
  The ADN-4101 supports WPS (Wi-Fi Protected Setup) for users to easily connect to wireless network without configuring the security.

- **WPA-PSK Support**
  WPA-PSK_TKIP and WAP-PSK_AES encryptions are supported.

- **Wireless MAC Access Control**
  The Wireless Access Control feature can check the MAC address (hardware address) of wireless stations to ensure that only trusted Wireless Stations can access your LAN.

PRODUCT SPECIFICATIONS

MAIN COMPONENTS

CPU Chipset	RTL-8676
SDRAM	16MB
Flash	2MB
Wireless Chipset	RTL-8188RE

FUNCTIONAL SPECIFICATIONS

Product		802.11n Wireless ADSL 2/2+ 4-Port Router
Model		ADN-4101A / ADN-4101B
Hardware		
Standard		Compliant with ADSL Standard - Full-rate ANSI T1.413 Issue 2 - G.dmt (ITU G.992.1) - G.lite (ITU G.992.2) - G.hs,Multimode (ITU G.994.1) Capable of ADSL2 Standard - G.dmt.bis (ITU G.992.3) Capable of ADSL2+ Standard - G.dmt.bisplus (ITU G.992.5) - Reach Extended ADSL (RE ADSL) Support Annex A, B, M, L
Protocol		RFC 2364 - PPP over ATM (LLC/VCMUX) RFC 2516 - PPP over Ethernet (LLC/VCMUX) RFC 1483 - Classic IP over ATM (LLC/VCMUX) RFC 2684 - Bridged IP over ATM (LLC/VCMUX) RFC 2684 - Routed IP over ATM (LLC/VCMUX)
AAL and ATM Support		Support up to 8 PVCs ATM Forum UNI 3.1/4.0 PVC VC and LLC Multiplexing Integrated ATM AAL5 support(UBR,CBR,VBR-rt, and VBR-nrt) 0～255 VPI plus 1～65535 VCI address range OAM F4 & F5 Segment end-to-end loop-back, AIS, and RDI OAM cells
Ports	**LAN**	4 x Ethernet (10/100Mbps, Auto-Negotiation, Auto MDI/MDI-X)
	WLAN	1 x 802.11b/g/n Access Point with one 2dBi dipole antenna
	WAN	1 x RJ-11
LED Indicators		PWR, Link, Data, LAN 1~4, WLAN, WPS
Button		WLAN, Reset, WPS, Power
Max. Concurrent Sessions		2048
Wireless Standard		IEEE 802.11b, g and 802.11n
Wireless Frequency		2.4 to 2.4835GHz (Industrial Scientific Medical Band)
Wireless Channels		Maximum 14 Channels, depending on regulatory authorities
Wireless Data Encryption		64 bit / 128 bit WEP, WPA-PSK / WPA2-PSK, and WPS PBC
Wireless Data Rate		Maximum up to 150 Mbps IEEE 802.11b: 1/2/5.5/11Mbps IEEE 802.11g: 6/9/12/18/24/36/48/54Mbps IEEE 802.11n: 14/29/43/58/87/116/130/144Mps in 20MHz 30/60/90/120/150Mbps in 40MHz
RF Modulation		IEEE 802.11b mode: DSSS (CCK,QPSK,BPSK) IEEE 802.11g mode: OFDM (BPSK,QPSK,16QAM,64QAM) HT20 and HT40: 64 QAM, 16QAM, QPSK, BPSK

Transmit Power	11b: 16.5dBm ± 1.5dBm 11g: 14dBm ± 1.5dBm 11n HT20M:13dbm± 1.5dBm 11n HT40M: 13dbm± 1.5dBm
Receiver Sensitivity	802.11b: ＜-80dBm 802.11g: ＜-68dBm 802.11n HT20M: ＜-64dbm 802.11N HT40M: ＜-61dbm
Software	
Protocols/Features	NAT supports multimedia applications NAT, Static Routing, and RIPv1/2 Transparent Bridging Dynamic Domain Name System (DDNS) SNTP DNS relay and IGMP proxy DMZ and Virtual Server Quality of Service (QoS) for Traffic Prioritization TR-069 Ready UPnP
Security	PPP over PAP (Password Authentication Protocol, RFC1334) PPP over CHAP (Challenge Authentication Protocol, RFC1994) DoS Protection Access Control ACL (Access Control) IP/MAC /Application/URL Filter Stateful Packet Inspection (SPI) Firewall Password protection for system management
Management	Web-based configuration Embedded Telnet server for remote and local management Firmware upgraded and configuration data upload/download via WEB SNMP v1/v2c MIB supported Support DHCP Server/Client/Relay Built-in Diagnostic tool TR-069
Environment Specifications	
Dimensions (W x D x H)	176 x 124 x 35 mm (W x D x H)
Power	12V DC, 0.8A
Temperature and Humidity	Operating temperature: 0 ~ 50 degrees C Storage temperature: -10 ~ 70 degrees C Humidity: 10 ~ 95% non-condensing
Emission	FCC, CE

PHYSICAL SPECIFICATIONS

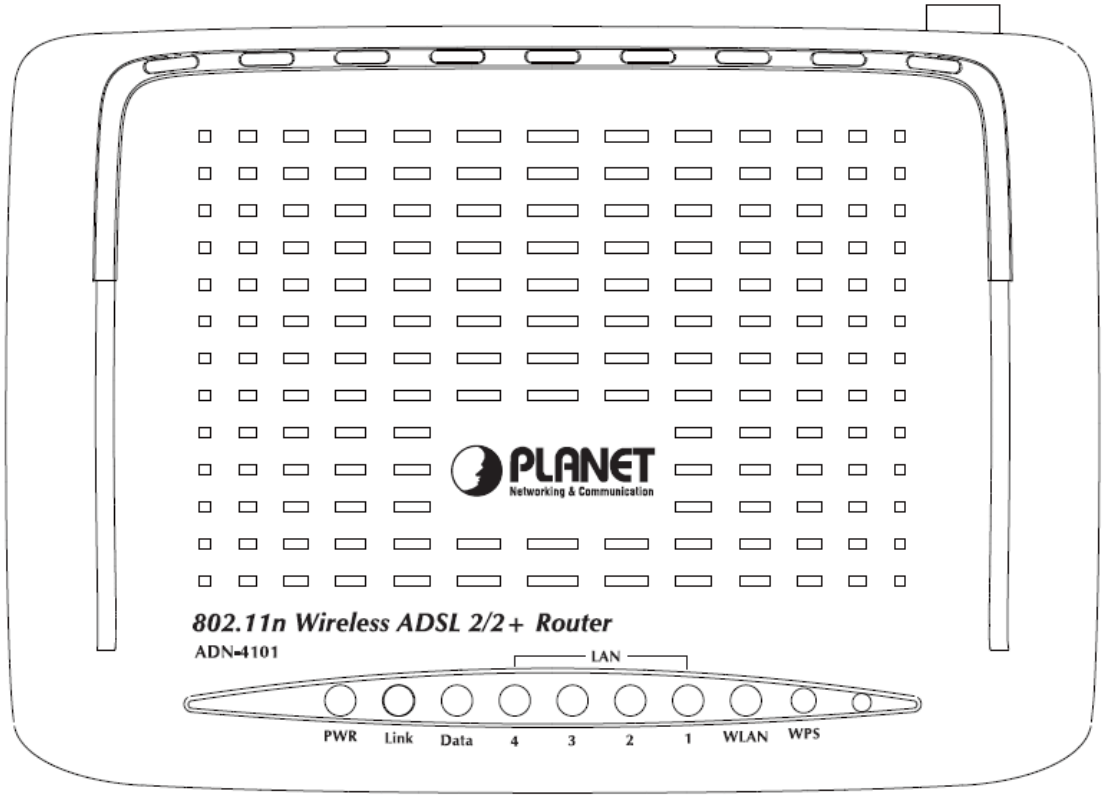
Dimensions

176 x 124 x 35mm (W x D x H)

Weight

257g

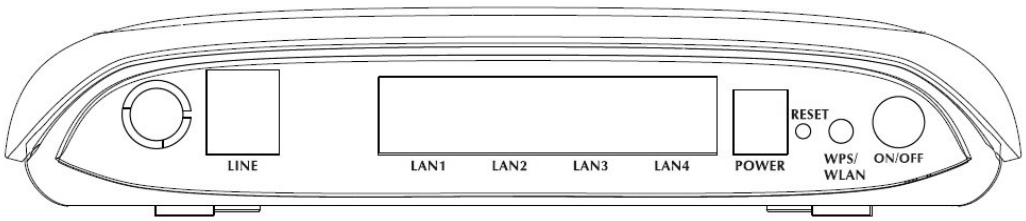
Front Panel



LED Indicator

LED	State	Description
PWR	Green	When the router is powered on and in ready state
	Red	The device is being turned on and booting
	Off	When the router is powered off
Link	On	Successful connection between ADSL modem and telecom's network
	Flashing	Modem is trying to establish a connection to telecom's network
Data	Off	No Internet connection.
	Green	The users can access the Internet.
	Red	Device attempts to have IP connected but failed.
LAN 1-4	On	Link
	Flashing	TX or RX activity
WLAN	On	The Wireless Interface is ready
	Flashing	The Wireless data is transmitting
	Off	The Wireless Interface is disable
WPS	Off	WPS service is not in use, or WPS is set up successfully.
	Flashing	WPS service tries to establish.

Rear Panel



Port and Button Definition

Connector	Description
POWER Button	The power button is for turning on or off the router.
WPS / WLAN	Pressing for 1~2 seconds can enable and disable the wireless function. Pressing for 5 seconds can enable WPS function of the wireless clients. The router and clients will automatically configure the security key and connect directly.
Reset	The reset button can restore the default settings of device. To restore factory defaults, keep the device powered on and push a paper clip into the hole. Press down the button for over 5 seconds and then release.
Power	Power connector with 12V DC, 0.8A
LAN 1-4	Router is successfully connected to a device through the corresponding port (1, 2, 3, or 4). If the LED is flashing, the Router is actively sending or receiving data over that port.
Line	The RJ-11 connector allows data communication between the modem and the ADSL network through a twisted-pair phone wire.

ENVIRONMENTAL SPECIFICATIONS

Temperature

Operating	0 ~ 50 degrees C
Storage	-10 ~ 70 degrees C

Operating Humidity

Operating	10 ~ 95% (non-condensing)
Storage	10 ~ 95% (non-condensing)

ELECTRICAL SPECIFICATIONS

Device Input Voltage	12V DC / 0.8A	
Power Adapter	Power Input	100~240, 50-60Hz, 0.5A Switching Power Supply
	Power Output	12V DC / 0.8A

REGULATORY COMPLIANCE

FCC, CE, RoHS, WEEE

RELIABILITY

MTBF> 50,000hrs @ 25 degrees C

BASIC PACKAGING

- ADN-4101 Unit x 1
- Power Adapter x 1
- Quick Installation Guide x 1
- User's Manual CD x 1
- RJ-11 Cable x 2
- RJ-45 Cable x 1
- Splitter x 1

PACKAGE INFORMATION

Dimensions	280 x 190 x 68mm (W x D x H)
Weight	656g
Carton Dimensions	TBD (W x D x H)
Carton Weight	6.56kg
Carton Unit	10 pcs in one carton

APPENDIX A: DEFAULT SETTING

Default DHCP Server	On
Default IP Address	192.168.1.1
Default Login User Name	admin
Default Login Password	admin